

As we discussed on the phone, here is proposed claim amendment.

20. A protein co-crystal comprising a processivity clamp factor of DNA polymerase that is the subunit of DNA polymerase III of Escherichia coli which has the amino acid sequence of SEQ ID NO 5; and a peptide of 16 amino acids having the amino acid sequence of VTLLDPQMERQLVLGL (SEQ ID NO: 1), wherein said protein crystal is in triclinic space group P1 and has cell dimensions of: $a = 41.23 \text{ \AA}$, $b = 65.22 \text{ \AA}$, $c = 73.38 \text{ \AA}$, $\alpha = 73.11^\circ$, $\beta = 85.58^\circ$, and $\gamma = 85.80^\circ$.

23. The protein co-crystal according to claim 20, wherein a structure of said protein co-crystal having atomic coordinates obtained by X-ray diffraction of said protein co-crystal, and said atomic coordinates are shown in Figure 1.

24. The protein co-crystal according to claim 20, wherein a structure of said protein co-crystal having atomic coordinates representing the peptide of SEQ ID NO: 1 which is defined by the atom 5689-5744 as shown in Figure 1, and atomic coordinates representing the β subunit of DNA polymerase III of Escherichia coli which is defined by the atomic coordinates of amino acid residues Leu 155, Thr 172, Gly 174, His 175, Arg 176, Leu 177, Pro 242, Arg 246, Val 247, Phe 278, Asn 320, Tyr 323, Val 344, Ser 346, Val 360, Val 361, Met 362, Pro 363, Met 364, Arg 365 and Leu 366 as shown in Figure 1.

25. A method to obtain the protein crystal of claim 20, said method comprising:
(a) mixing a solution comprising the β subunit of DNA polymerase polymerase III of Escherichia coli having the amino acid sequence of SEQ ID NO 5, with a solution of the peptide of 16 amino acids having the amino acid sequence of VTLLDPQMERQLVLGL (SEQ ID NO: 1), and with a solution of 0.2 M 2-(N-morpholino)ethane sulfonic acid (MES) at pH 6.0, 0.2 M CaCl_2 , 60% PEG 400, to obtain a crystallization drop,
(b) allowing the crystallization drop to concentrate against a solution of 0.1 M MES pH 6.0, 0.1M CaCl_2 , 30% PEG 400, by vapor diffusion, to obtain the protein crystal.

Reasons for proposed amendment;

Claim 20: adding "space group P1" to avoid 112 1st rejection (written description, scope of enablement and possibly new matter rejection)

Claim 24: Deleting dependency to Claim 23 because it does not further limit from Claim 23 since all coordinates are already presented in coordinate of Figure 1.

All other changes are proposed to improve a format of the claims and possible objections. Newly filed sequence SEQ ID NO: 7 need to be deleted or applicants can provide the support from the original disclosure.

Thank you for your time and feel free to call if you have any question.